



Smithsonian Institution

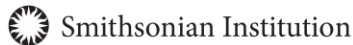
Sustainability Efforts Briefing

for the

Small Agency Council – Procurement Committee

December 19, 2012

Smithsonian Institution Overview



- The Smithsonian Institution – the world's largest museum and research complex – includes 19 museums and galleries and the National Zoological Park.
- The Smithsonian Institution is also home to nine research centers and numerous research programs.
 - Archives of American Art
 - Smithsonian Conservation Biology Institute (SCBI)
 - Smithsonian Environmental Research Center (SERC)
 - Smithsonian Marine Station (SMS) at Fort Pierce, Florida
 - Museum Conservation Institute (MCI)
 - Smithsonian Astrophysical Observatory (SAO)
 - Smithsonian Institution Archives (SIA)
 - Smithsonian Institution Libraries (SIL)
 - Smithsonian Tropical Research Institute (STRI)

Sustainability Practices In Our Facilities



- Designing our new facilities to achieve LEED-Gold certification.
- Integrating green materials and/or technology into our renovation projects.
- Energy conservation initiatives.
- Recycling all recyclable materials in all our facilities.
- Utilizing green cleaning products and paper products in our facilities.
- Acquisition of alternative fueled vehicles and use of alternative fuels and bio-based lubricants.
- Reducing the vehicle fleet size.

SERC Mathias Laboratory



- 74,000 sq. ft new; 21,000 sq. ft. renovation; for improved safety and functionality in coastal ecosystems research operations.
- Construction completion in 2014, anticipating LEED-Gold certification.
- Protects and enhances wetlands and forests.
- High performance building includes daylighting, geothermal heating and cooling, solar domestic water heating, ventilation heat recovery.

National Zoo: Elephant Trails



- Phase I Barn, Habitats 2 and 3, Trek, Visitor Outpost, finished.
- Phase II renovation of Elephant House, Habitat 1 complete in late 2012.
- Targeted for LEED-Gold certification.
- Natural daylight and ventilation, geothermal walls, green roofs.



Renovation of historic structure for new Elephant Community Center



Green roof and operable skylights for natural daylight and ventilation on completed Barn

Arts and Industries Building

 Smithsonian Institution



- LEED-Gold Certified Project
- First phase of renovation underway – replacement of the roof and windows



National Museum of African American History and Culture (NMAAHC)

 Smithsonian Institution



- LEED-Gold Certified Project
- Construction began on the Mall in 2012 and is expected to be completed in 2015

Smithsonian-Mason: School of Conservation



- Partnership includes SI constructed education facility, George Mason University constructed residential and food service facilities.
- Construction and move-in complete August 2012.
- Targeted for LEED–Gold certification.
- Geothermal walls, a green roof, water and energy use reduction, storm water quantity and quality control, native plant selections.



American History / Natural History

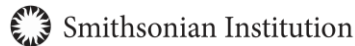
Energy Savings Performance Contract Project



- Performed upgrades of lighting, chilled water, domestic hot water, and HVAC systems by using the Department of Energy's (DOE) Energy Savings Performance Contract.
- \$20M project cost is paid from guaranteed energy savings (45 BBtu and \$1.6M/year).
- Reduced greenhouse gas (GHG) emissions by 3,908 tons/year and removed 8,000 lbs of obsolete, ozone depleting refrigerants.
- Winner in the Sustainability Category (2009) GSA Achievement Award for Real Property Innovation.

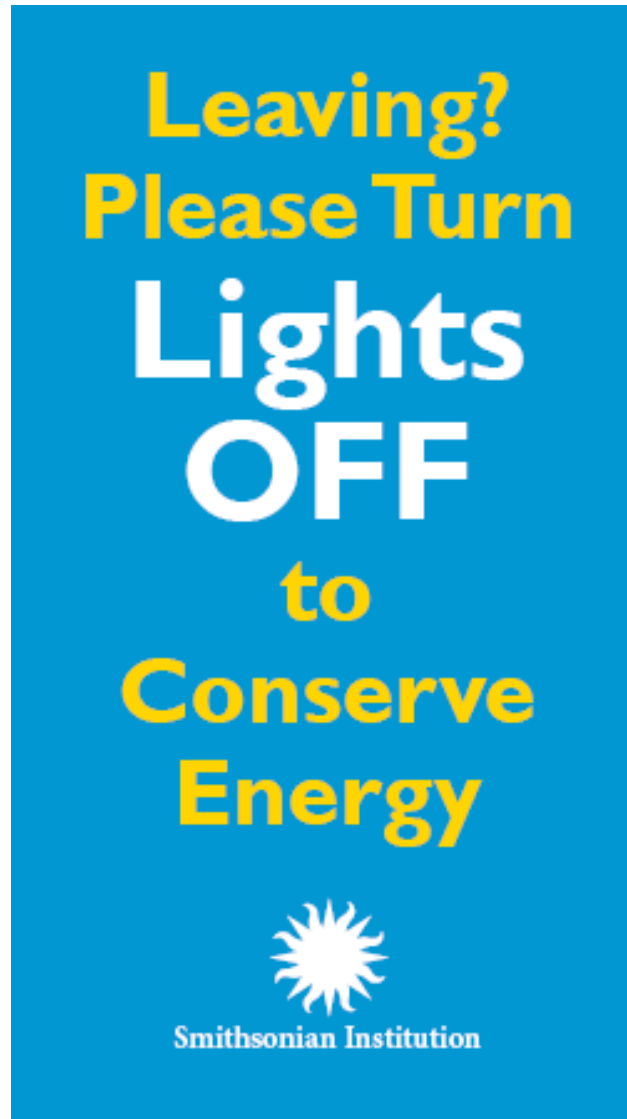


Increasing Energy Conservation Awareness



DESIGNED BY
SMITHSONIAN
EXHIBITS
PROFESSIONALS
FOLLOWING
SMITHSONIAN
STANDARDS

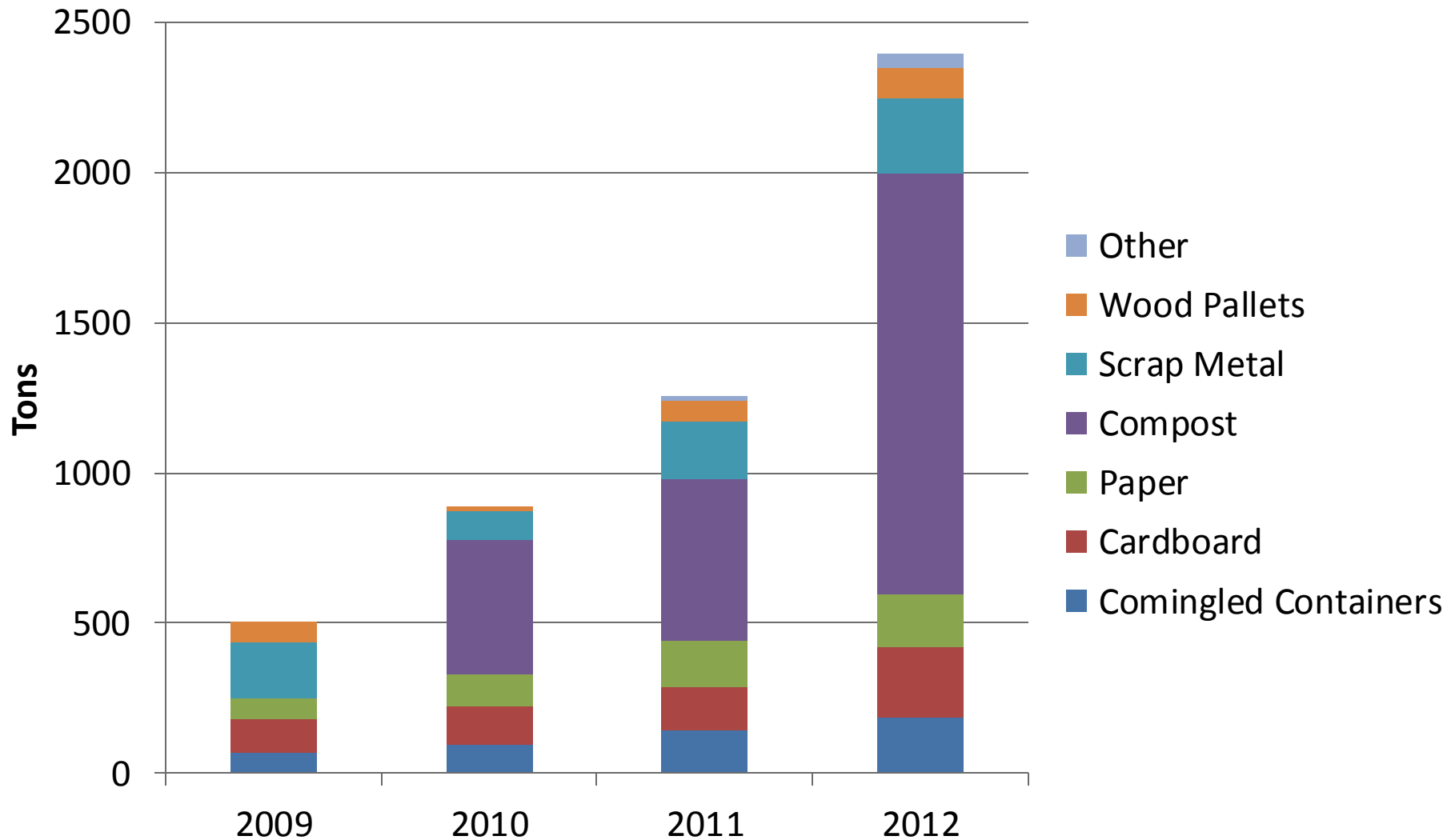
EASY PEEL
AND STICK
INSTALLATION



INCREASES
AWARENESS OF
ENERGY
CONSERVATION

IMMEDIATELY
SAVES MONEY

Landfill Diversion Through Recycling



Recycling Initiatives



- Formed a Recycling Committee consisting of stakeholders.
- Conducted waste audits.
- Established uniformity of recycling containers and strategically placed recycling containers.
- Introduced the practice of composting food waste and plant materials.
- Integrated recycling requirements in procurement awards.
- Trained Smithsonian staff on proper usage of recycling containers.
- Increased awareness through quarterly *Sustainability Matters* newsletters disseminated to staff via email.
- Increased awareness through signage.

Smithsonian Waste Audits



A day's worth of trash from 17 museums and the Zoo was sorted into categories and weighed to document actual waste habits.

 Smithsonian Institution

Green Cleaning



In 2005, the Smithsonian began researching and testing green cleaning products performance at all facilities

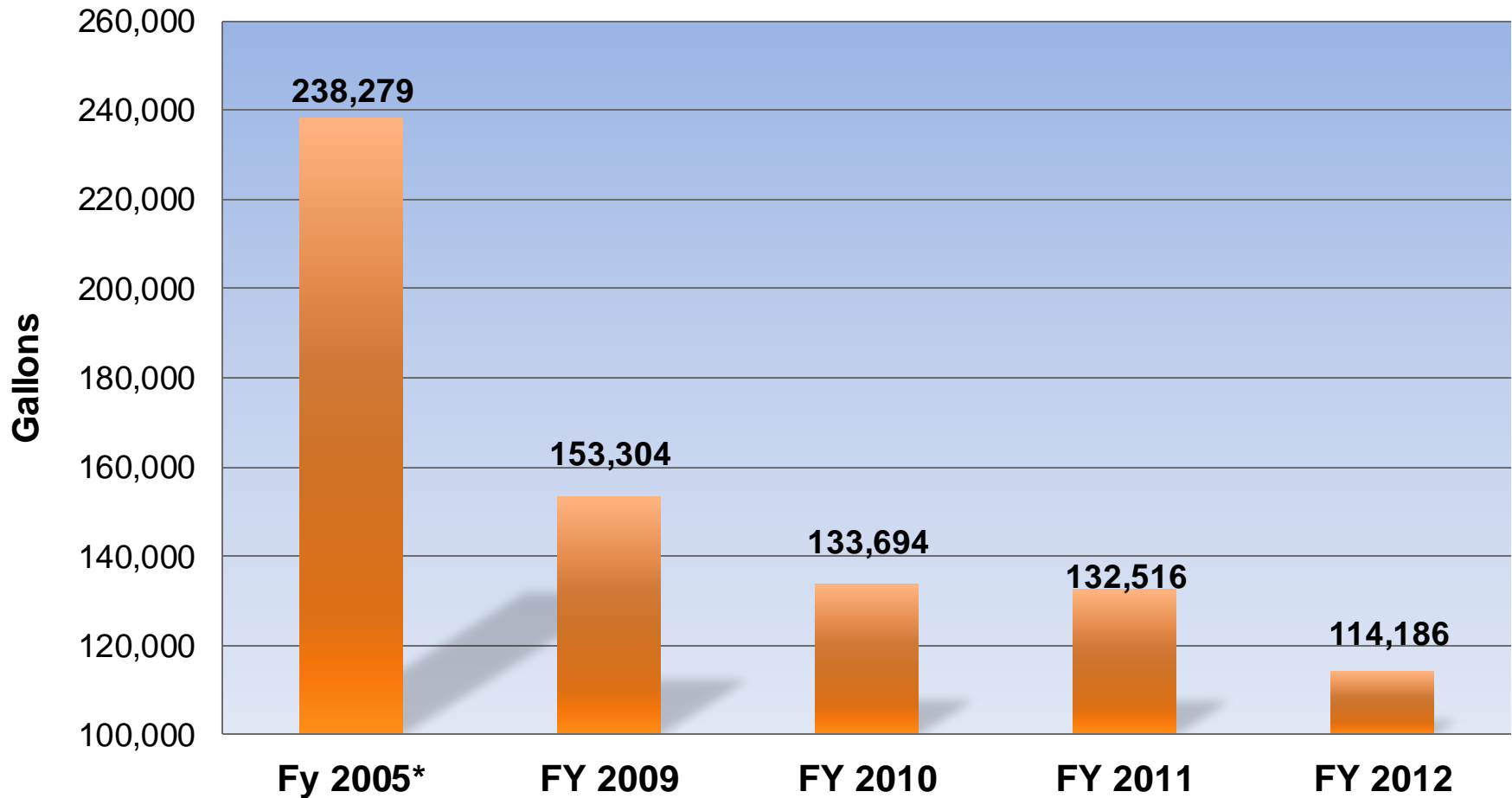


Cleaning products such as glass cleaner, disinfectant, carpet cleaner, bath and bowl cleaner, and all purpose cleaner concentrates are diluted with water in portion-controlled dispensing systems.



Microfiber cleaning cloths are used at facilities to save water and reduce solid waste.

Decreasing Gasoline and Diesel Use



* EPA Act Base Line Year

Reusability of Excess Property



Actions that Smithsonian property managers take in rethinking what to do with our organization's excess property

- Optimize the use of assets
- Prevent loss
- Recycle where possible (toner cartridges, batteries)

Disposition methods that are considered and implemented whenever possible

- Reuse – internal
- Product take back
- Reuse - external

Property Reuse – Internal



- The Smithsonian Institution asks staff to use excess property as their first source in the acquisition process.
- The Smithsonian uses an internal system, the Smithsonian Integrated Personal Property Transaction System (SIPPTS), that allows staff to search for and view available excess property before it is surplussed through GSA.



Product Take Back



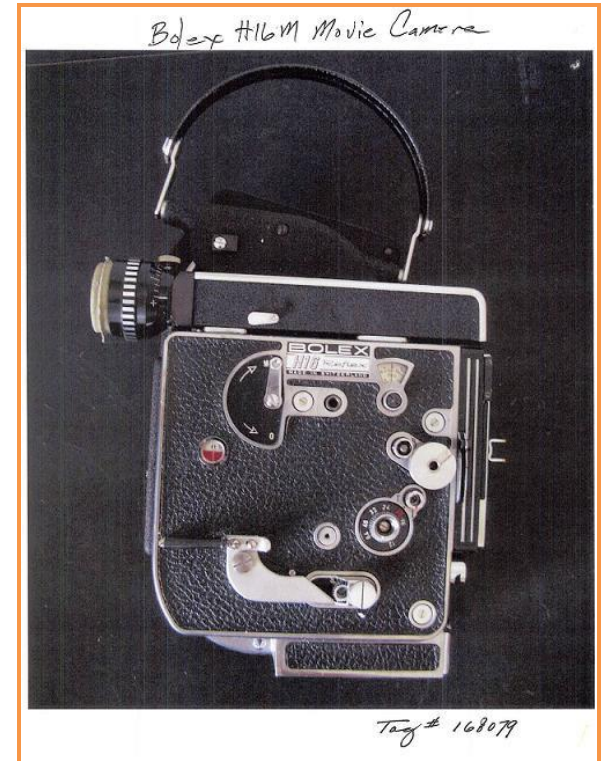
More than 5,600 IT assets disposed of through a Dell certified recycler using a product take back program in FY12.




Property Reuse – External

Property, to include reusable electronics in working condition, is:

- Transferred to other agencies
- Donated to approved recipients, or
- Delivered to GSA for reuse in other agencies.



Promoting the Use of Recycled Paper



Smithsonian Institution

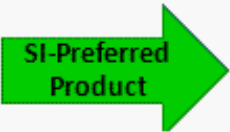

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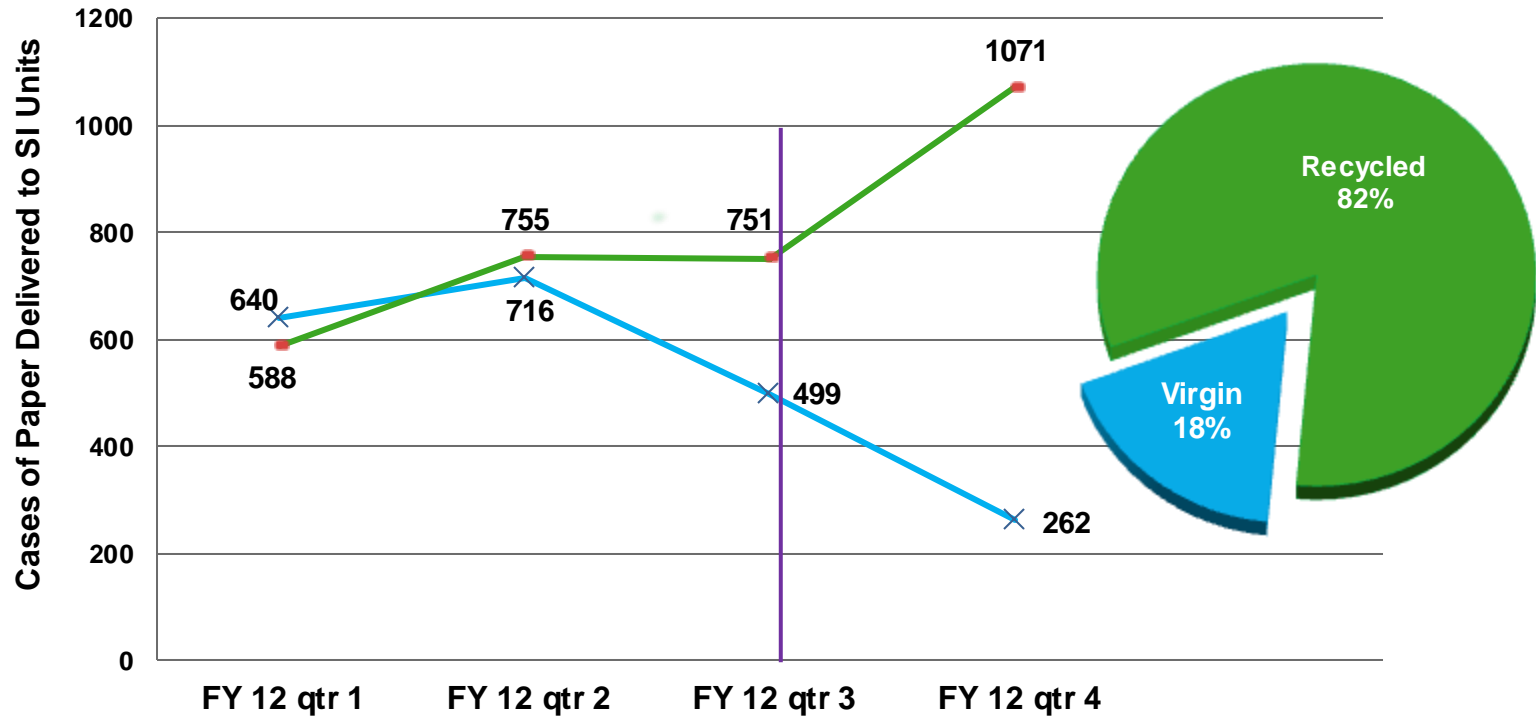
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Trends in Recycled Paper Use (FY12)



National Zoo Opens Solar-Powered Carousel



- In November of this year, the Smithsonian's National Zoo opened a new solar-powered carousel with hand-carved, hand-painted figures representing many endangered animals.
- The carousel is powered by 162 solar panels donated and installed by Pepco Energy Services.
- There are 58 animals represented on the carousel. They include elephants, pandas, frogs, hummingbirds, blue crabs, lions and other critters.
- The cost is \$3 per person to ride. Proceeds from ticket sales will support animal care and conservation research at the zoo.



Questions?



Dottie Leffler, Director

Office of Contracting & Personal Property Management

Email: LefflerD@si.edu

Cargie Vaughn, Associate Director

Museum Support Services Division

Email: Vaughca@si.edu